

Remarks

Claim 1 is amended and claim 11 is added. Claims 1 to 11 are pending in this application of which only claims 1 and 11 are in independent form.

Claims 1 to 9 were rejected under 35 USC 102(b) as being anticipated by Linderholm. The following will show that claim 1, as amended, patentably distinguishes the applicant's invention over this reference.

The basic idea of the applicant's invention is nowhere suggested in Linderholm, namely, providing an arrangement with which the interior wall of a cylinder can be machined with a cutting tool whose drive axis is orthogonal to the rotational axis of the tool holder. More specifically, nowhere in Linderholm is there any suggestion which could lead our person of ordinary skill to hit upon the feature and limitation of applicant's claim 1 which provides for:

"a driveable cutting tool mounted on
said tool holder at said free end thereof
and having a drive axis lying essentially
orthogonally to said rotational axis;"
(emphasis added)

Applicant emphasizes that his invention relates to an arrangement which includes a rotationally moveable tool holder and a tool held on the tool holder which is for machining the inner wall surface of a cylinder, namely, the control window in the cylinder wall of a cylinder housing for a two-stroke internal combustion engine. As set forth in applicant's claim 1, the cutting tool is brought into the work position at the cylinder

wall by a transverse movement of the tool holder which has been introduced into the interior space of the cylinder.

In the applicant's invention, a cutting tool is provided having a drive axis disposed orthogonally to the rotational axis of the work tool holder as noted in the second clause of claim 1 quoted above. The cutting tool is brought into contact engagement with the cylinder wall because of the transverse and rotational or pivotal movements of the tool holder so that with the tool drive axis, which is orthogonal to the rotational movement, a cutting operation can take place in order to cut out the control window from the cylinder wall.

In contrast to the applicant's invention, Linderholm discloses an arrangement which does provide for a rotatable tool holder but provides a tool for cutting a hole whose rotational axis is coincident with the rotational axis of the tool holder. An orthogonal position of the drive axis of the cutting tool relative to the rotational axis of the tool holder is nowhere suggested in this reference. Furthermore, also a transverse movement of the tool holder for bringing the cutting tool into engagement with the cylinder wall is not suggested in Linderholm.

An adjusting device in the drilling arrangement of Linderholm is compared in the action to the transverse movement of the tool holder of the applicant's invention. The adjusting device in the drilling arrangement of Linderholm provides for a transverse displacement of the tool via a longitudinal displacement of a radial offset needle 52 in the tool holder. This radial offset needle has conically-shaped surfaces. In contrast to applicant's invention, the tool holder in Linderholm

remains fixed in the transverse direction of its rotational axis.

It might be the case that in Linderholm, holes having greater diameters than that of the tool are possible via a transverse movement of the tool. However, this has nothing to do with the applicant's invention. With the known displacement of the bore head via the radial offset needle, only adaptations of the drill hole dimensions for curved surfaces are provided in order to achieve the required cutouts for attachment bolts in the area of application of the drill unit for thin and curved composite materials (please see column 1, starting at line 10). The transverse displacement of the drilling tool therefore takes place only to a slight extent in correspondence to the conical taper of the offset needle.

In contrast to Linderholm, in the arrangement of the applicant's invention, the cutting tool is brought into engagement via a transverse movement of the tool holder. The transverse movement can then, for example, be controllably guided by the tool holder of a machine tool.

It is, however, to be noted that the tool axis in Linderholm is always parallel to the rotational axis of the tool holder for every transverse adjustment of the drilling tool. A radial machining of a cylinder wall is therefore impossible with the configuration taught by Linderholm.

Applicant emphasizes that his claim 1 makes the above difference clear with the clause quoted above in these remarks which positively recites that the drive axis of the cutting tool lies essentially orthogonally to the rotational axis of the tool holder. This is nowhere suggested in Linderholm so that this

reference cannot anticipate the applicant's invention.

In view of the foregoing, applicant submits that claim 1 should now patentably distinguish his invention over Linderholm and be allowable. Claims 2 to 10 are all dependent from claim 1 so that these claims too should now be allowable. Claim 11 is added to provide another independent definition of the invention and is somewhat narrower than claim 1 so that this claim too should patentably distinguish the invention over Linderholm and be allowable.

Reconsideration of the application is earnestly solicited.

Respectfully submitted,



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